

Application Serial No. 10/715,047
Reply to Office Action of September 9, 2004

PATENT
Docket: CU-3998

Amendments To The Claims

The listing of claims presented below will replace all prior versions, and listings, of claims in the application.

Listing of claims:

1. (original) A level capable of fine inclination measurement, comprising:
a stick member having four rectangular planar members joined along an elongated central axis to form a cross sectional profile of "+"; a given length and a cross-section of a + shape;
a base member having a through hole having a center and being connected a given width at one side of a curved portion of the stick member and a through hole of a given diameter passing through its center, wherein the base member is fixed in parallel to the stick member, wherein the base member is bounded by two rectangular planar members, and further wherein the perpendicular axis running through the center of the through hole is perpendicular to the elongated central axis of the stick member;
a circular rotatory plate having an insertion axis inserted into the through hole of the base member at its center one side, wherein the circular rotatory plate rotates on the base member;
a resilient member provided on the insertion axis, for adhering the rotatory plate to the base member with a given resilient force;
a bolt member screwed to the end of the insertion axis in an axis direction, for supporting the resilient member; and

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an inclination measurement sphere provided at one side of the rotatory plate, wherein the inclination measurement sphere has one side of a flat or semi-spherical shape and the other side of a large radius of curvature being almost flat, and wherein scales of a given distance are indicated on an outer circumferential surface of the inclination measurement sphere.

2. (original) The level as claimed in claim 1, wherein one side of the base member is formed centering on the through hole, and further comprising:

a circular adhesion groove having the inner circumferential surface that is inclined;

teeth grooves formed on the inner circumferential surface of the adhesion groove, wherein the teeth grooves have cross section of a "V" shape and 36 in number with them spaced 10° ; and

a plurality of hanging protrusions formed with slant on the outer circumferential surface of the rotatory plate so that the rotatory plate is inserted/adhered to the adhesion groove, wherein the hanging protrusions are inserted into the teeth grooves on the outer circumferential surface of the rotatory plate.

3. (original) The level as claimed in claim 1, further comprising an indicator for identifying the location of the teeth grooves and the hanging protrusions, on the outer circumferential surface of the close adhesion groove and the rotatory plate.